

**Consultancy Report
on the current situation of
AGRONATURA and FUNDACIAT**

**Consultants: Luís Arango Nieto
Eduardo J. Trigo**

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1. General Information on the Consultancy

1.1. The Consultants' Profiles

Luís Arango Nieto

Professional in Agricultural Sciences, Oklahoma State University; Masters in Animal Nutrition, Virginia Polytechnic Institute and State University; Bachelor in Business Administration, University of Los Andes.

Private Consultant: IDB, IOM, International Survey, Alquería S.A., IICA, FAO, RIMISP, World Bank

Executive Director, CORPOICA (2002–2004)

Vice Minister of Agriculture and Rural Development (1998–2002)

Executive Director, Asosemillas (1990–1992)

Assistant Director, ICA (1986–1990)

Eduardo José Trigo

Business Management, Catholic University of Córdoba, Argentina; Masters in Agricultural Economics, University of Wisconsin; Doctorate in Agricultural Economics, University of Wisconsin.

Scientific Advisor, Directorate for International Relations, Ministry of Science, Technology, and Productive Innovation, Buenos Aires, Argentina

Director of the Consultants Group on Economics and Organization, Buenos Aires

Board Member of the National Agency for the Promotion of Science and Technology, Secretariat of Science and Technology, Buenos Aires

Executive Director, Foundation ArgenINTA

Director, Technology Generation and Transfer Program, IICA

Senior Research Officer/Head of Research, ISNAR, The Hague, Netherlands

Consultant to various international organizations

1.2. Terms of Reference for the Consultancy

Objective

To analyze the current situation of Agronatura and FUNDACIAT.

Activities

To fulfill the objective, the following activities were expected to be carried out overall:

- a. Visiting Agronatura institutions
- b. Conducting the seminar "Rethinking Agronatura"
- c. Submitting a final report with suggestions and recommendations

Duration

The consultancy will be conducted between 12 and 16 April 2010. This does not include, however, the preparatory work that the consultants must carry out before their visit.

2. Background and Objectives

In 2000, CIAT created the Agronatura Scientific Park as an instrument of proactive character to promote better relationships with other institutions, both public and private, in Colombia and the region with which CIAT shares its commitment to combat poverty and promote agricultural development and food security.

When it was first conceived, Agronatura was set up on the idea of “... having people working together, every day, in the same site” so that each and every person will know their strengths and weaknesses, and develop mutual respect and generate good personal relations, forming a natural basis for institutional partnerships. The “scientific park” approach was conceived “as highly effective for promoting the hybridization of ideas” by having people of different backgrounds and perspectives, but with common objectives, working at the same site. The intention was—with a similar concept to that of hybrid vigor in the field of genetics—to establish dynamics of confrontation of ideas and, through it, generate new thinking (*Cultivating Affinities*, November 2000, page 2).

Since starting with this concept, the Agronatura Park has grown significantly and, currently, counts on the participation of 7 national institutions, which cover highly varied fields of activity, but all closely related—at least potentially—with CIAT’s mandate.¹ Some of these institutions carry out joint activities with CIAT, but no formal framework has been given for this effort to occur. Instead, they have developed as a result of the natural synergies existing between their objectives and activities and CIAT’s work programs.

As part of this same concept, and institutional interest to facilitate linkages with the media and with other related institutions, internal discussions started in 2009 on the convenience of relying, in addition to Agronatura, on another instrument of the type foundation, which not only offered physical space, but also other facilities more closely linked to aspects of access to resources and management of given factors and activities related to CIAT’s tasks. Hence, in January 2010, the CIAT Foundation to Support Research, Development, and Innovation (FUNDACIAT) was created as a private, nonprofit agency, organized and governed under Colombian law, with the objective to promote and/or develop initiatives of common interest and related to scientific, technological, and ecological research; environmental protection; education, health, culture; and social development programs. FUNDACIAT has not yet begun developing its activities, but already has the legal capacity to do so.

Within this general framework and to develop a work plan that will optimize the benefit of these instruments, the idea was proposed to review the implementation of these in CIAT’s current context. What things have functioned until now; what aspects should be strengthened for greater impact; what should FUNDACIAT’s operational role be in terms of Agronatura’s future operations and in what specific fields; and how CIAT could take better advantage of FUNDACIAT’s operations were questions proposed as specific aspects to consider for review. The review itself took place in the week 12–16 April 2010 (see *Appendix 1* for the work program). This report summarizes the mission’s results.

¹ Agronatura currently includes the following members: Corporación BIOTEC; Corporation for Rural Business Development (CODER); Foundation for Agricultural Research and Development (FIDAR); Colombian Institute of Agriculture and Livestock (ICA); “José Benito Vives De Andrés” Marine and Coastal Research Institute (INVEMAR); Alexander von Humboldt Biological Resources Research Institute; and Colombian Sugarcane Research Center (CENICANA).

3. Analyzing Agronatura

3.1. Background

The definition of “technological park” according to the International Association of Science Parks (IASP) is “an organization managed by specialized professionals, whose main aim is to increase ... the culture of innovation and the competitiveness” of the companies and institutions generating the knowledge installed at or associated with the park.

The creation of this type of park arose in response to the need of industry to permanently innovate, obliging it to be strongly dependent on research processes. Hence, behind a scientific or technological park is always a solid academic base that, when combined with a policy of science, technology, and innovation, becomes a facilitating instrument of relationships between industry and research with the goal of innovating.

Scientific and technological parks have a long history that started at the end of the 1950s in the already well-known Silicon Valley of USA. At the end of the 1960s, this type of park was being created in UK and France. By the 1980s, such initiatives were being “mass produced”, so that, by the end of the 1990s, there were an estimated 400 parks around the world.

Currently, internationally, two types of parks are known, depending on the type of orientation and type of research being developed.

The “scientific park” is a conglomerate of technologically based organizations, located at a university. It aims to benefit from the knowledge generated or being generated by that university. In its turn, the university hopes to develop knowledge more effectively through association with the organizations that form part of the park.

The “technological park” is more closely linked with the private sector and usually has installed already consolidated companies seeking the development of new products. Here, the stimulation and generation of the flow of knowledge and technology is between universities, research institutions, companies, and markets, driving the creation and growth of innovative companies.

In either case, the park is an organization that is developed primarily on university land and offers a basic infrastructure of communications, physical space, laboratories, logistics, recreation, restaurants, libraries, etc. that results in benefits for the institutions belonging to the park. Furthermore, it receives logistical support and services.

3.2. Agronatura

In the case of Agronatura at CIAT, the physical structure, support, and essentials were already available, facilitating the development of a park on CIAT’s land.

Despite the foregoing, a series of questions arose on the consolidation of a scientific or technological park meeting international standards. Resolution of these questions would better clarify the park’s operations.

Approach. As already mentioned, a park’s approach can be either scientific or technological. However, in CIAT’s case, more than a scientific or technological park, what is being proposed

is the opening of spaces to entities or organizations with similar objectives to enable the development of synergies to more efficiently meet its objectives.

Geographical scope. A scientific or technological park usually limits its geographical operations to one region. However, in CIAT's case, although its priority is Valle del Cauca, because of its characteristics, CIAT may welcome other entities, whether national or international.

Orientation. Parks are usually oriented around the strengths of the universities where they were established. In CIAT's case, despite certain institutional strengths, the park's characteristics are not limited to CIAT's strengths but rely on elements of support and complementarity that permit the development of synergies. Furthermore, if CIAT has restrictions within its mandate, its participation with Agronatura entities can expand beyond that mandate through FUNDACIAT.

Legitimacy. This element consists of using infrastructure that has been paid for by donors to generate public goods and it can be claimed that the said infrastructure is being used to generate private goods. Here, two situations would solve this question: one, the CGIAR is requesting more aperture to achieve impact and, two, any agreement in this regard should be made in a transparent fashion with agreement achieved beforehand.

Will. The great success of scientific and technological parks is found in the true willingness of institutions to share physical resources (e.g., laboratories and equipment) and knowledge. In Agronatura's case, in the event such needs develop, they should be answered in a transparent manner and documented.

Private interest. For parks, the active participation of the private sector is basic, in such a way that the results of activities carried out become realized in innovation processes. In Agronatura's case, this cannot become the park's final objective and, hence, it is not essential that the park becomes an incubator of companies. This solves the eventual legal problem that would occur through the use of land that is not CIAT's.

University participation. For scientific and/or technological parks, university participation is indispensable, as the world regards this as providing the scientific and technological backing that such parks require. However, Agronatura receives such backing from CIAT, which, although as an institution, does not have an academia per se, it does indeed have processes for theses preparation and training in different subjects.

Neighbors: ICA, CORPOICA, and the National University. Although ICA is already part of Agronatura, it is as a service that CIAT requires for its operation. However, together with CORPOICA–Palmira and the National University–Palmira, ICA should be invited to become integrated into regional processes. A mechanism should be designed so that they may participate in Agronatura without necessarily being located at CIAT.

Agronatura clientele. A park's clientele depends to a large extent on the strengths and portfolio of the university at which the park is located. In Agronatura's case, the clientele should certainly have clear affinities with CIAT's activities, for which criteria must be defined to enable filtering of the institutions desiring to join Agronatura.

3.3. Visits to Agronatura Institutions

To bring together more elements to the analysis, several meetings were held with different members of Agronatura to obtain greater clarity on its development. We affirm that, overall, a broad range of interests and objectives exists among the institutions present.

Institutions such as CODER and FIDAR complement CIAT activities; they openly declare the benefits they obtain by being at CIAT. BIOTEC's case shows an allied relationship of mutual benefit. INVEMAR is apparently outside CIAT's interests. However, they have recently been exploring joint activities in biotechnology. The von Humbolt Institute has its special activity and takes advantage of the physical space for its banks and, moreover, has had facilities for students preparing theses, but joint activities with CIAT are almost nonexistent. The case of ICA is special in that it provides a service for CIAT. However, an ICA–CIAT agreement will soon be signed that will, hopefully, extend the relationship to a strategic partnership on themes of plant and livestock health.

3.4. Conclusions and Recommendations

After a comparative analysis on what it is a scientific and/or technological park versus Agronatura, the following conclusions and recommendations may be proposed:

Agronatura is not a park in the strict terms by which a scientific and/or technological park is usually known at the international level. Agronatura (as indicated in *Background*) is a space that may be occupied by a series of institutions with activities related to those of CIAT so that, through synergies among them and with CIAT, they may develop their activities more efficiently. Hence, the term “scientific” should be eliminated from Agronatura's name.

Agronatura's geographical scope comprises the entities of Valle del Cauca in the first place and then other Colombian entities. However, it may receive international entities with activities related to those of CIAT.

To maintain affinity with the institutions installed in Agronatura, CIAT must define selection criteria that would allow it the security of admitting only those institutions that possess given interests or interests that can be mutually complemented by those of CIAT.

Agreements that permit organizations to be part of Agronatura should be carefully studied to prevent later claims from the land owners.

Agronatura must have a management mechanism, preferably integrated with that of FUNDACIAT, for developing and promoting synergies among Agronatura institutions and between these and CIAT.

In line with the foregoing, we recommend that the Annual Program Review be taken advantage of to formally explore possible opportunities that may exist among Agronatura institutions and CIAT. In this sense, we recommend that the Agronatura institutions be formally invited to present their activities in the same way as do CIAT programs.

Independently of the mechanisms promoting synergies within Agronatura, CIAT should define a policy and certain criteria aimed at promoting partnerships and associations with other organizations, whether public or private, national or international.

Both Agronatura (because it brings together research institutions) and CIAT should develop mechanisms that enable them to register before the COLCIENCIAS research groups to obtain funding for projects.

Finally, what is proposed in this document refers to the present situation. However, we should be aware that processes are dynamic and if, ultimately, the neighborhood (not in CIAT land) installs universities and companies that seek support and complementarity with CIAT, it will be necessary to immediately re-define the situation as a true scientific and technological park. In any case, and to achieve the park's proposed objective—of several years standing—CIAT must certainly become involved in promotion should the foregoing occur.

4. Analyzing FUNDACIAT

The use of the institutional figure of foundations to support and promote research activities and innovation in the field of agriculture, food, and natural resources is common in Latin American and Caribbean countries. Many important and successful experiences exist in situations as diverse as those of Honduras and the Dominican Republic, and of Chile and Argentina. The Honduran Foundation for Agricultural Research (FHIA), the Dominican Center for Agricultural and Forest Development (CEDAF), the Chilean Foundation, and the Foundation ArgenINTA represent concrete examples where, for diverse motives, the decision was made that facilitator mechanisms (besides the institutions directly involved in developing research and development activities), organized as foundations, could represent a significant contribution towards improving the use and impact of available resources.

The specific reasons that motivated the creation of the new institutions have been different in each case. In some situations—FHIA, CEDAF, and Fundación Chile—the motive was the need to have a different arrangement from the existing institutional formats to be able to access given resources such as donations and specific taxes. In others—ArgenINTA—the motive was more to facilitate the management of a certain type of project with the private sector or other public agencies, or the management of intellectual property of research products. The power of relying on more flexible structures to develop certain types of projects or indispensable activities to achieve impact, but to a certain extent outside the mandate of the mother institutions, has also been a significant motive in several of these situations.

Regardless of the specific reasons that led to the constitution of the new institutions, the basic theme has always been the need for a facilitating mechanism, whether to access resources or else have the power to conduct strategic activities to ensure impact, but which, for some reason—mandate or organizational culture—is difficult to develop within the mother institutions. The evolution of the real world is dizzying and, frequently, institutional mandates are difficult to change and adjust with sufficient flexibility as to be permanently in line with the needs of the time. The alternative is to remain out of phase with the demands being faced and either suffer the waste of lack of impact or a lesser impact than potentially attainable, or establish enabling mechanisms that permit a gradual evolution that do not introduce major institutional breaks. Foundations are useful instruments in this regard.

4.1. Justification for FUNDACIAT

The situation at CIAT is clearly different from that of the cases mentioned above where foundations are used as facilitating mechanisms. At first glance, most of those aspects that gave rise to the creation of the new institutions are not clear in CIAT's case.

- CIAT may receive donations and, in fact, has done so since its creation; indeed, it forms one of its basic financing mechanisms.
- The Center's relationship with the private sector and the management of property rights over research findings are aspects that have also been handled, and are being handled, very much on a daily basis within already existing institutional and operational schemes.
- Administrative flexibility is also a salient aspect of the institution, as attested by CIAT providing services to the Ministry of Agriculture to manage science and technology conventions.
- The same may be said with respect to questions of mandate in the sense that, despite having a highly restricted research mandate, its Board of Directors has sufficient independence to authorize how the institution shall act on issues that are not strictly research.

Regardless of these aspects, another set of considerations exists that indicates that FUNDACIAT may signify a highly useful complement for the development of CIAT's activities.

First, despite CIAT being able to receive donations and being relatively flexible in accessing other types of resources, it is no less certain that its character as an international institution is detrimental to its capacity to participate in national competitions in Colombia and, most probably, in other countries of the region, and even compete for international sources such as, probably, the Framework Programme of the European Commission. FUNDACIAT, as a Colombian NGO, may appear before these resources either individually, or in consortium with Agronatura's entities, others of Colombia, or other countries of the continent.

The same situation occurs with respect to relationships with the private sector and/or the administration of intellectual property rights. This has been, and probably will continue to be, a difficult issue within the CGIAR. Although FUNDACIAT should not constitute a mechanism by which to avoid compliance with the said policy, it may contribute towards facilitating the management of the same, unifying criteria within the different units of CIAT and making transparent the use of resources from this type of activity and linkage. This may also be of particular use in the case of charging for intellectual property rights, which may be administered through a special fund in FUNDACIAT and thus facilitate compliance with the rule that funds collected through this type of mechanism may not finance activities of the sectors that generated them. This could be implemented in the form of a grants fund among the different units of the institution itself, or even with the participation of external entities, according to criteria opportunely set by the Board of Directors.

A third aspect that FUNDACIAT may facilitate is that of developing activities at the level of the LAC region or of implementing the partnership policy within the new SRF of the CGIAR. In the first case, it seems increasingly evident that many issues of regional interest are difficult to cover within the CGIAR's new orientation. However, CIAT has made its re-

insertion into the region a central aspect of its institutional repositioning. Within this framework, FUNDACIAT may serve as a proactive instrument for implementing this strategy, with respect to both the search for financial resources and the implementation of projects.

In the case of partnerships, the general rule should be that CIAT should be the one to conduct the relationships to ensure impact of the knowledge and technologies resulting from their research. However, situations may occur where this type of activity requires CIAT to assume the coordination of downstream activities, which may be a drawback from the institution's viewpoint, with the danger of returning to the "mission creep" that affected the institution in previous periods. In these cases, FUNDACIAT may fulfill an important role in advancing on the problems to be resolved, without extending institutional commitment beyond what is considered reasonable.

4.2. Conclusions and Recommendations

The information obtained and the analysis developed demonstrate that, even though CIAT has great flexibility in coping with many of the aspects that, in other situations, would have given rise to the need for creating mechanisms of the foundation type to complement the operations of research agencies, FUNDACIAT can offer CIAT a valuable service in several critical areas, which may still become critical in the future.

Taking into account the foregoing, the principal recommendation is that the installation of management mechanisms for FUNDACIAT—Administrative Council, Directorate, and Executive Secretariat—should be completed as soon as possible, and that the preparation of a first work plan for 2010–2011 be confronted. This work plan should contemplate, as a matter of priority, (i) in consultation with the institution's different units, the identification of opportunities for work in the short and medium term, (ii) a determination of sources of resources that are "nontraditional" to those which would normally be determined through FUNDACIAT, and the preparation of an action plan to access them, (iii) the type of services that FUNDACIAT could provide Agronatura's entities, and (iv) the preparation of a preliminary strategy for FUNDACIAT's operations beyond the Colombian ambience, including the type of activities and the institutions with it may relate.

Appendix 1: Program of Visit/Consultancy at Agronatura

Consultants: Luis Arango Nieto and Eduardo Trigo
CIAT HQ, 12–16 April 2010

Monday, 12 April

Arrival at Cali:

	Arrival from Bogotá		
Luis Arango Nieto	13 April 2010	AV 8409	13:10
Eduardo Trigo	12 April 2010	AV 9221	14:05

15:30–17:00 Contextualization meeting: E Trigo with AI Vargas (AI Vargas' Office)

Tuesday, 13 April

9:00–10:00 Consultants meet DG (DG's Office)

11:00–16:30 Visits to Agronatura institutions–part I:

11:00–12:00 Corporación BIOTEC

12:00–13:00 INVEMAR

13:00–14:30 Lunch

14:30–5:30 ICA

15:30–16:30 CODER

Wednesday, 14 April

9:00–11:00 Visits to Agronatura institutions–part II:

9:00–10:00 FIDAR

10:00–11:00 von Humboldt Institute

11:30–12:30 Meeting with Partha Mudgil, Intellectual Property Officer (Board of Directors' Office)

12:30–14:00 Lunch with DG

14:30–16:30 Preparation for Seminar

Thursday, 15 April

8:30–11:00 Seminar on “Rethinking Agronatura” (Nariño Room)

12:30–14:00 Lunch

14:00–16:00 Organization of conclusions and preparation of final report (L Arango and E Trigo)

19:00–21:30 Supper in Cali, consultants and DG; KIVA Restaurant (Ciudad Jardin, Cali)

Friday, 16 April

Morning: Preparation of final report

15:00–16:00 Meeting on conclusions with DG (DG's Office)

Departure for Bogotá:

Departure for Bogotá		
16 April 2010	AV 9216	18:35
16 April 2010	AV 9216	18:35